Geometry Workbook

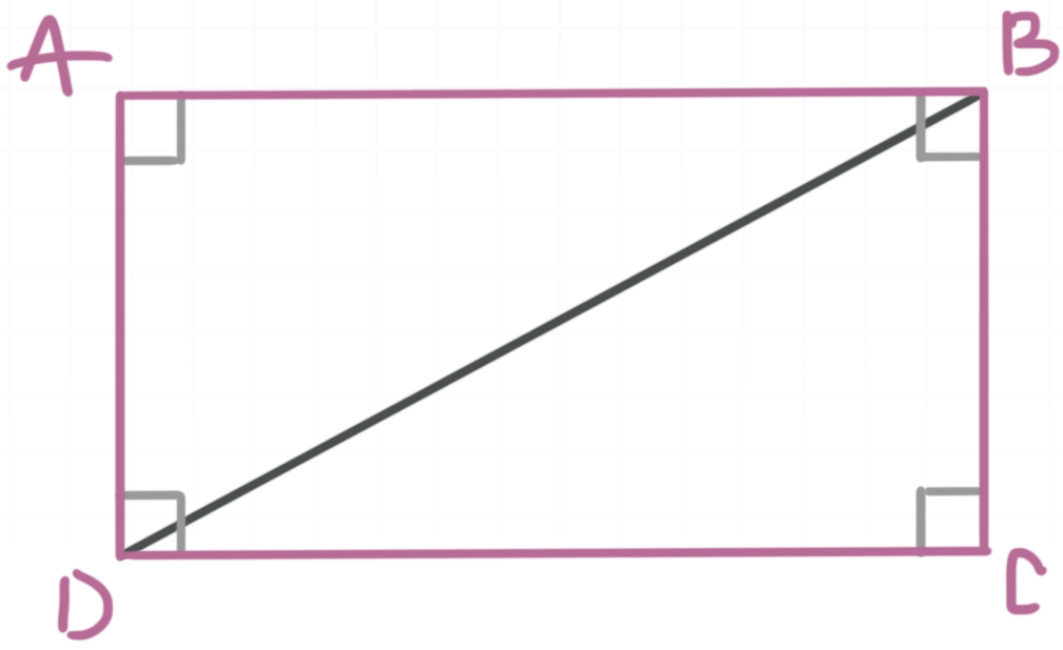
Area and perimeter

krista king
MATH

AREA OF A RECTANGLE

■ 1. The base of a rectangle is 8 feet. Find its height if the area of the rectangle is 80 ft^2.

■ 2. In rectangle $ABCD$, $BD = 13$ and $AB = 12$. Find the area of this rectangle.



■ 3. In rectangle $GHKL$, $LH = 10$ and $m\angle GHL = 30$. Find the exact area of the rectangle.

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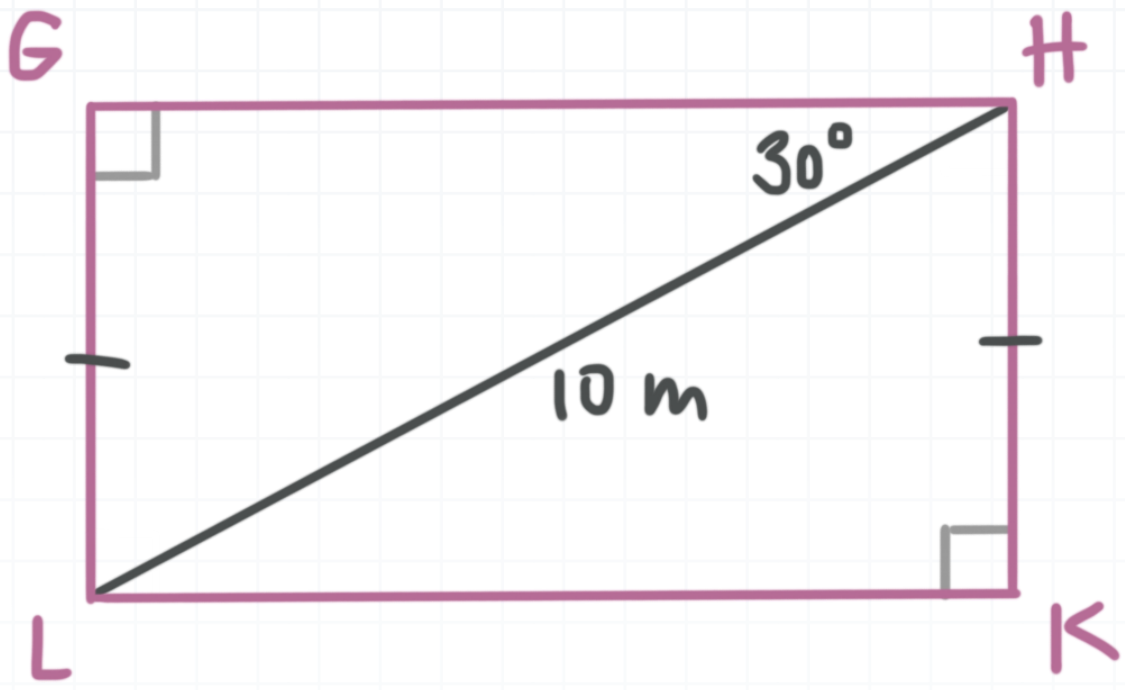

4. The area of a small square flower garden is 49 ft^2. Suppose we wish to make the garden bigger by adding 6 feet to one of the sides. How much more square footage is available in this new rectangular garden?

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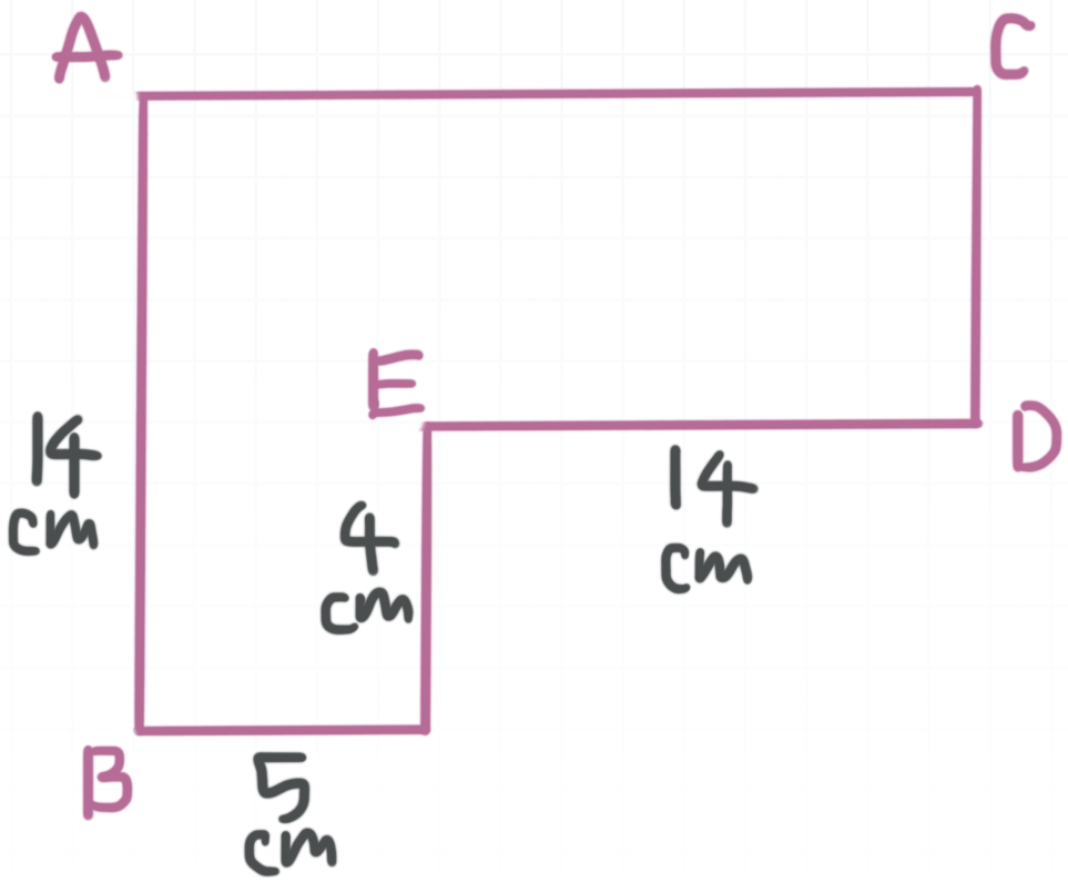
AREA OF A RECTANGLE USING SUMS AND DIFFERENCES

1. Find the area of the figure.



2. Find the area of the figure.

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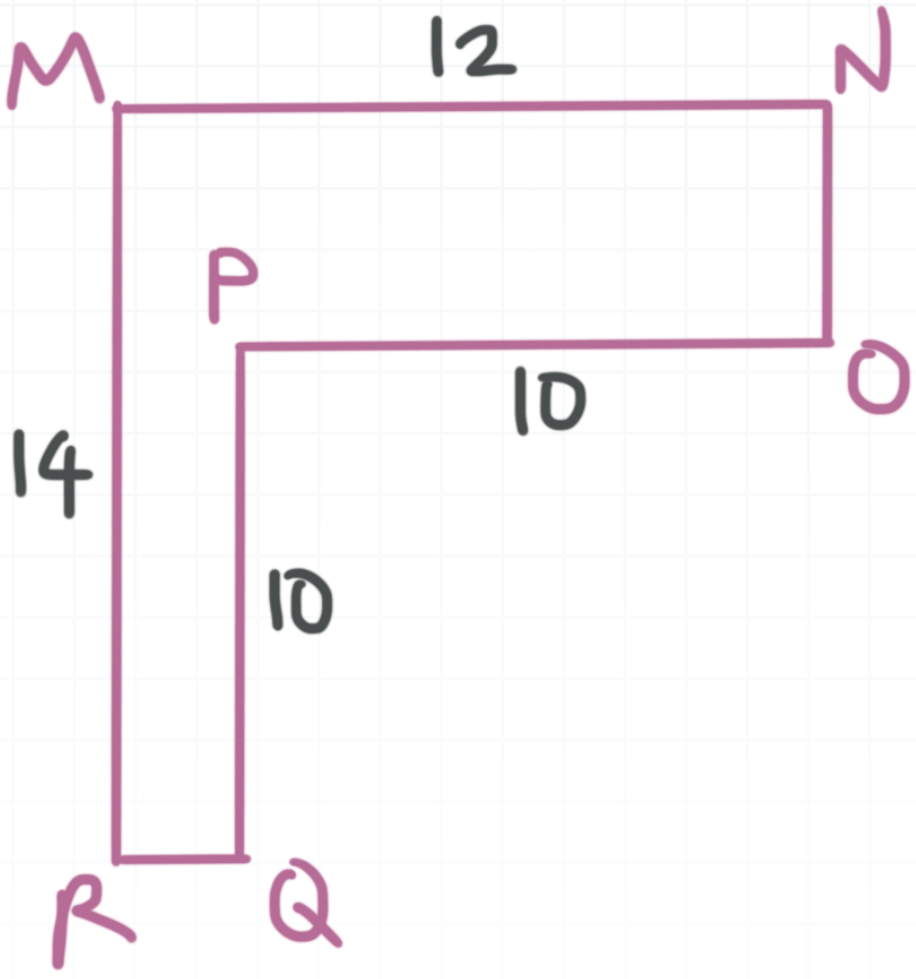
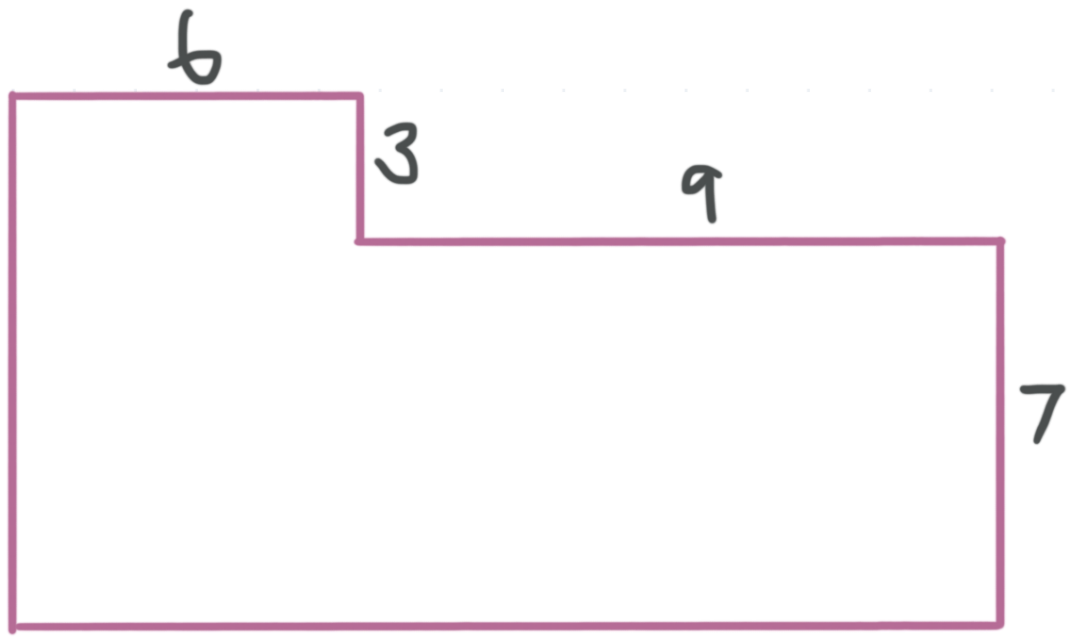


■ 3. Find the area of the figure.



■ 4. Find the area of the figure.

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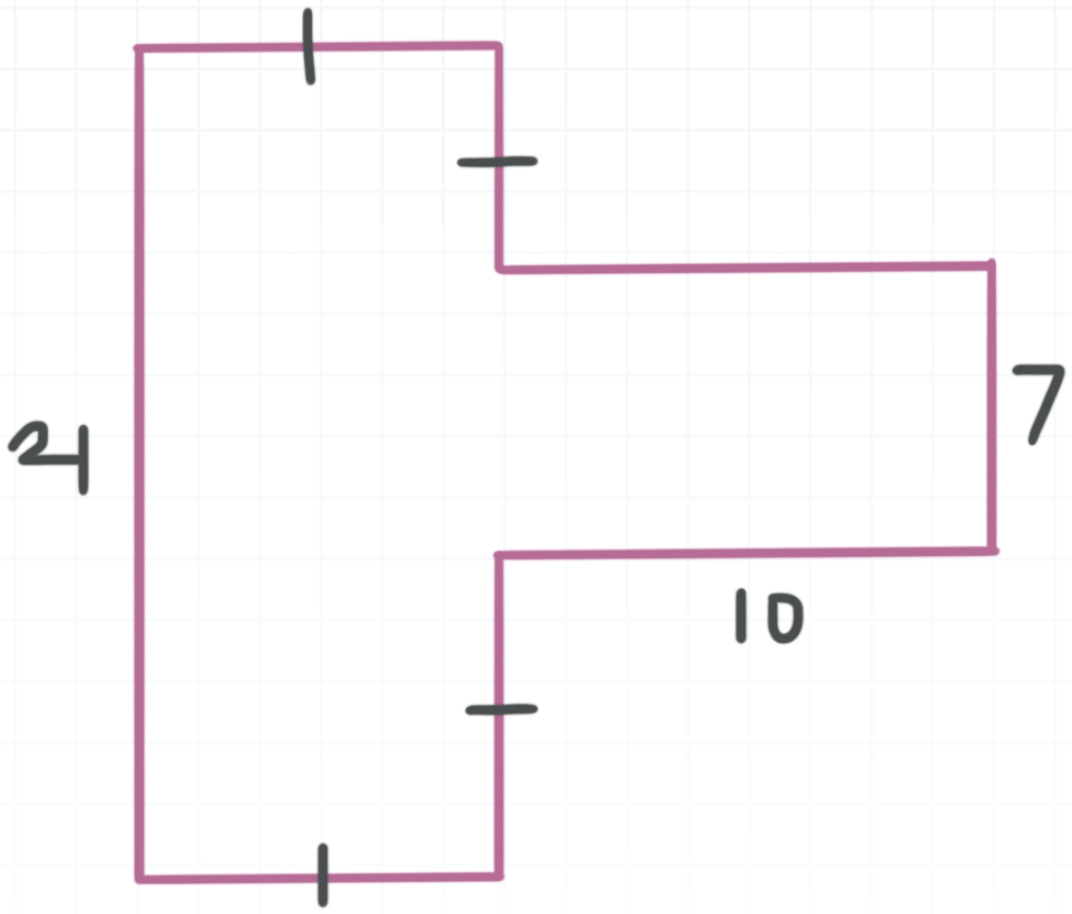

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PERIMETER OF A RECTANGLE

■ 1. A rectangle has a base of 10 meters. The height is 4 meters greater than the base. Find the perimeter of this rectangle.

■ 2. The area of a rectangle is 40 ft^2. Find the perimeter of this rectangle if the length of the rectangle is 3 feet longer than the width.

■ 3. Find the perimeter of a rectangle with vertices at $A(-3,0)$, $B(0,4)$, $C(4,1)$, and $D(1,-3)$.

■ 4. Find the value of x if the base of the rectangle has length $x+4$, the height of the rectangle is x, and the perimeter of a rectangle is 20 units.

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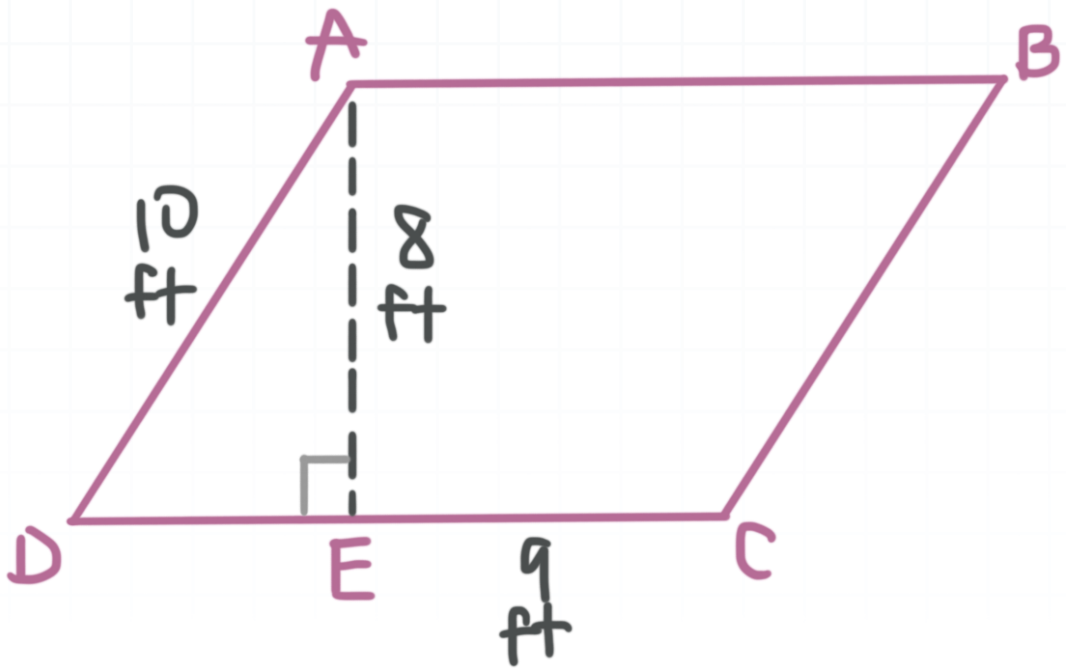
AREA OF A PARALLELOGRAM

■ 1. Find the area of a parallelogram with $b = 14$ yards and $h = 10$ yards.

■ 2. Find the area of the parallelogram.



■ 3. Find the area of parallelogram $JKLM$, if $J(0,0)$, $K(1,3)$, $L(-5,3)$, and $M(-6,0)$.

■ 4. A parallelogram has a base that is 3 feet longer than it is tall. The area of the parallelogram is 88 square feet. Find the height of the parallelogram.

■ 5. Find the exact area of the parallelogram.

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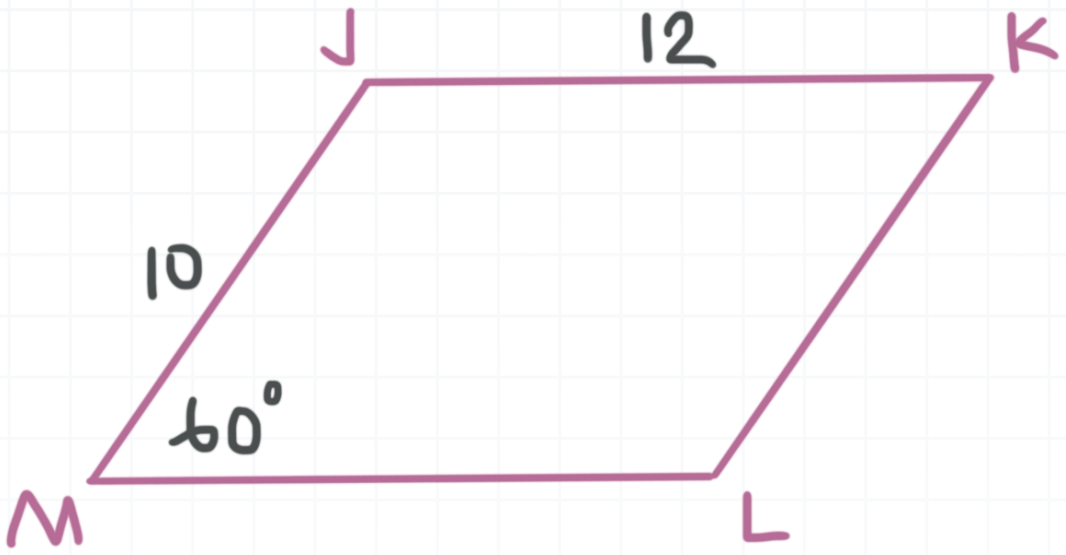

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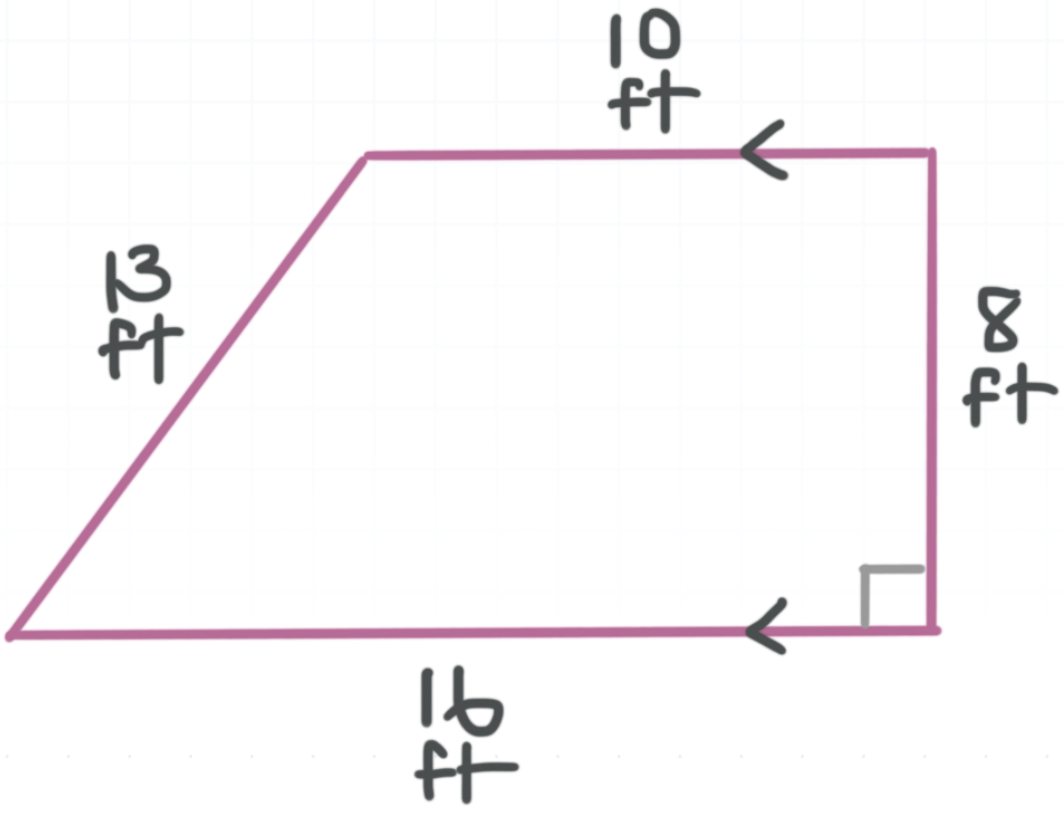
AREA OF A TRAPEZOID

1. Find the area of a trapezoid with base lengths 16 and 18, and height 10.

2. Find the area of the trapezoid.



3. Find the exact area of the trapezoid.

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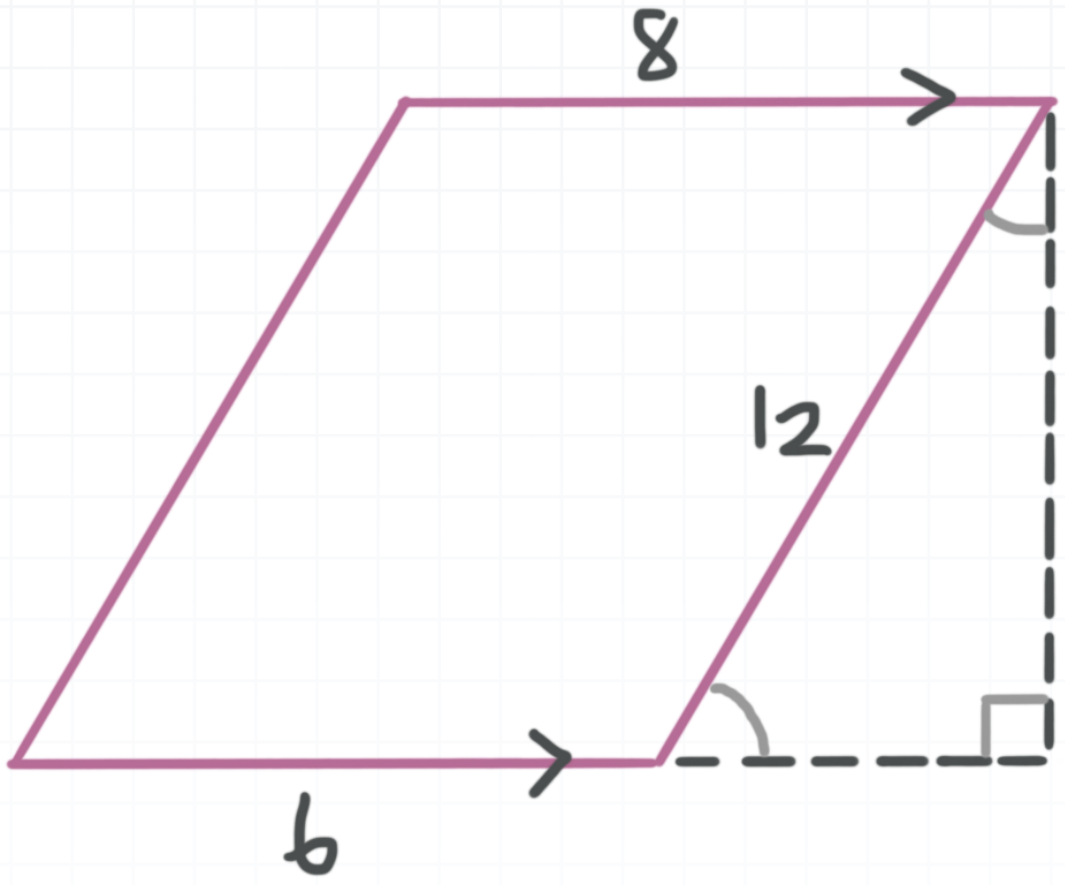
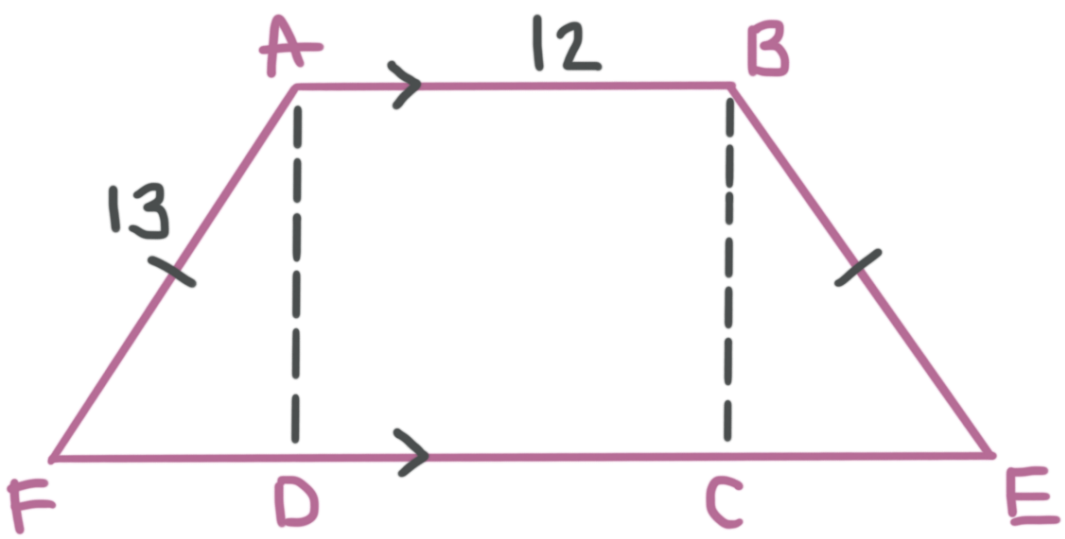


4. The area of a trapezoid is 60 m^2. One of the bases has a measure of 7 m and the height of the trapezoid is 10 m. Find the length of the other base.

5. Find the area of trapezoid $ABEF$, if $ABCD$ is a square.



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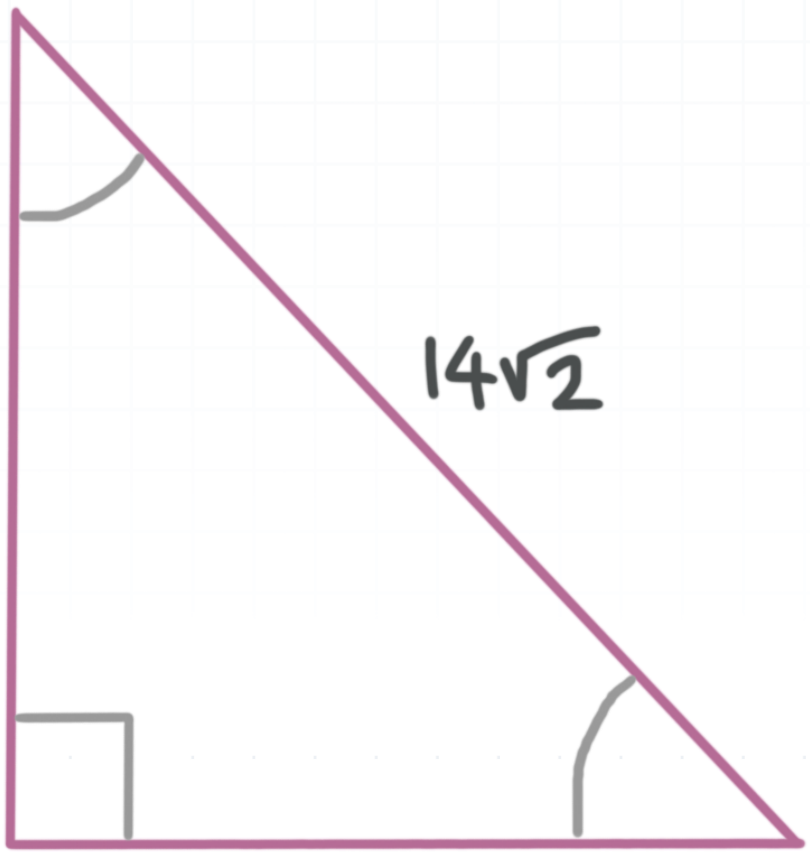
AREA OF A TRIANGLE

1. Find the area of a triangle that has base length 16 and height 14.

2. Find the area of the triangle.



3. Find the area of the triangle.

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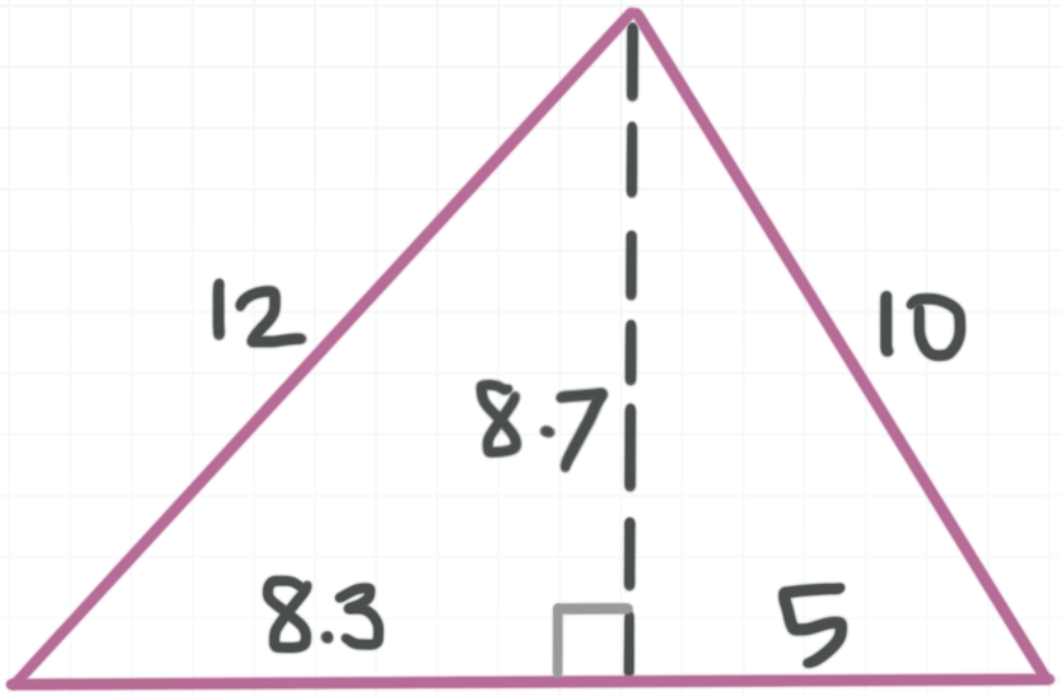
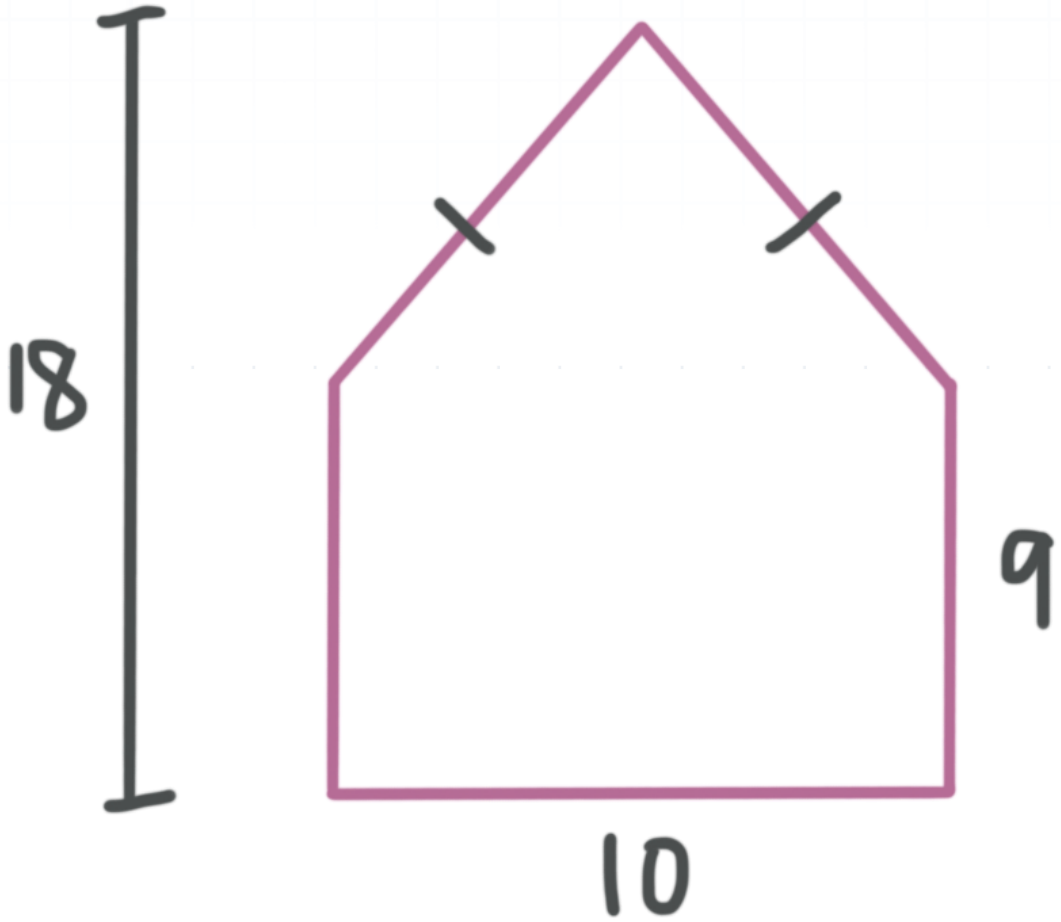


4. Find the area of the figure below.



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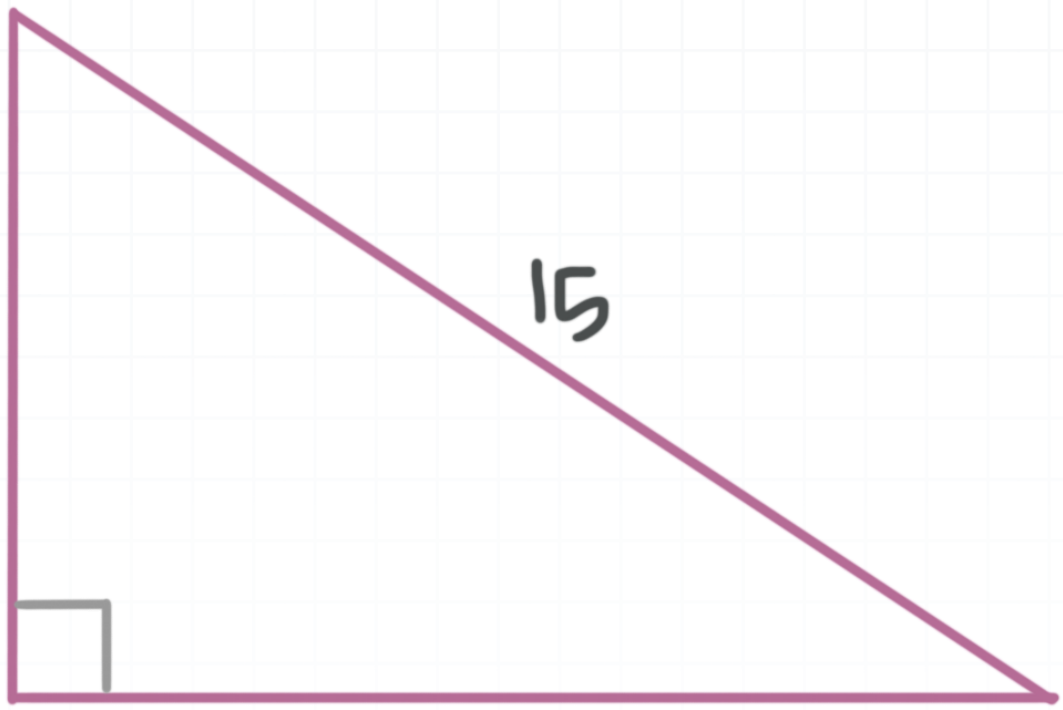
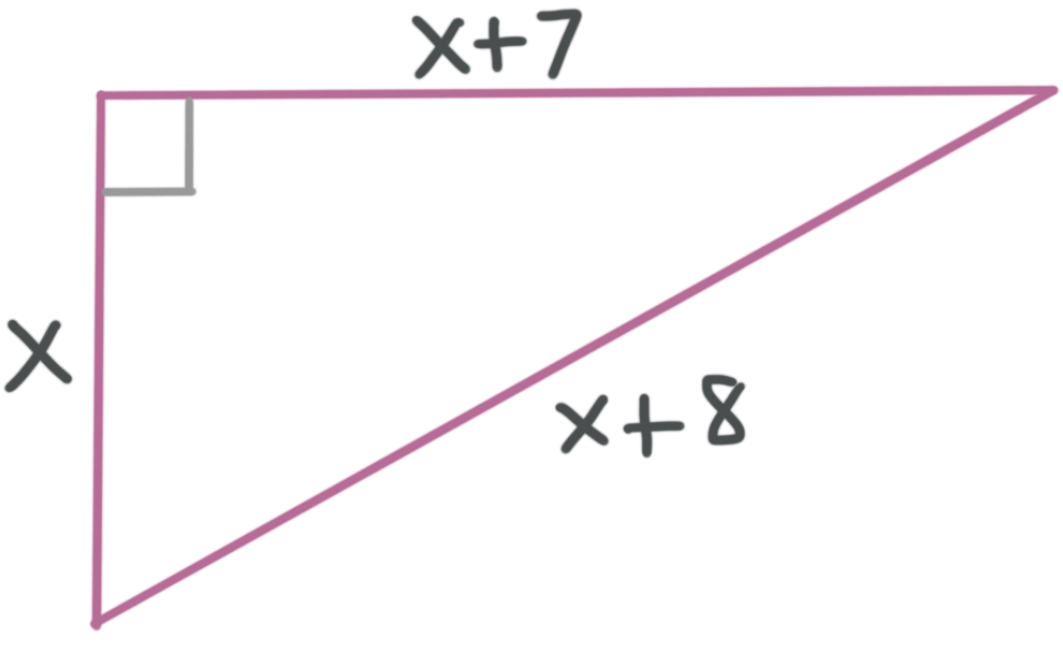
FINDING PERIMETER USING THE PYTHAGOREAN THEOREM

1. Find the perimeter of the triangle.



2. Find the perimeter of the triangle.



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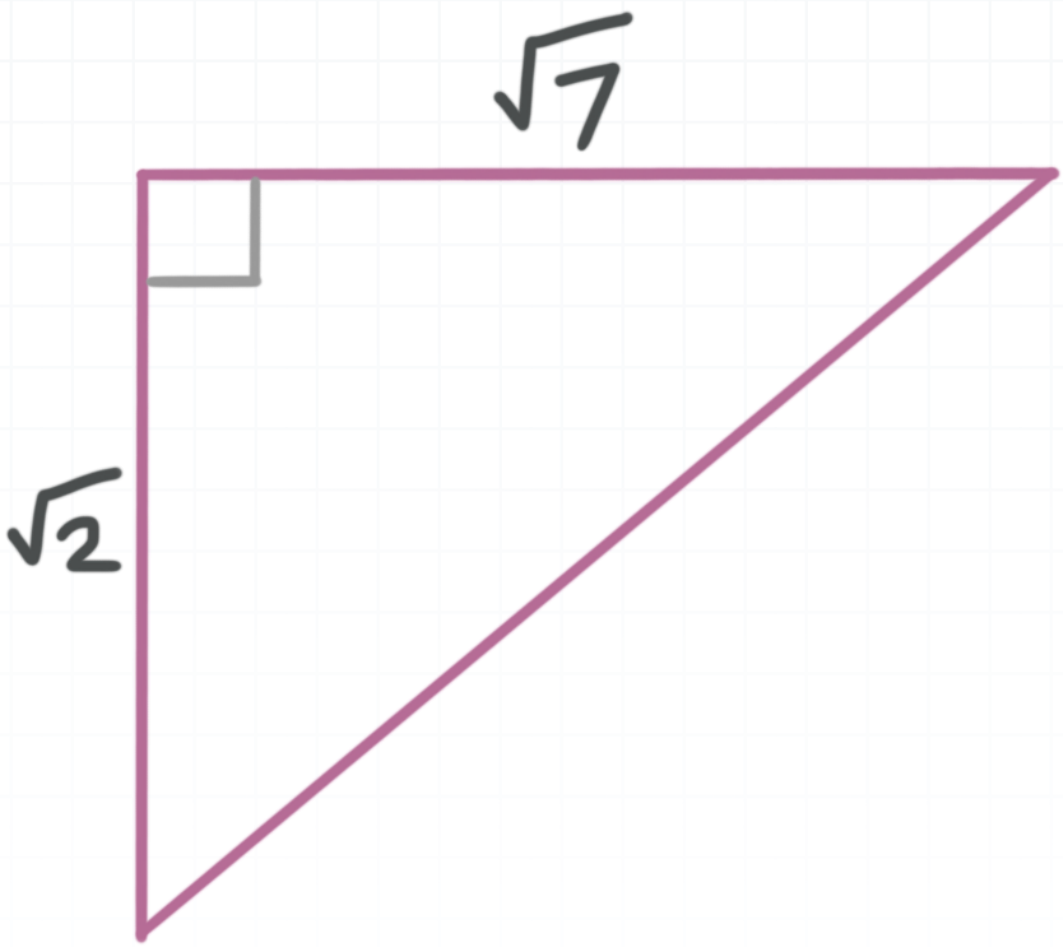
3. Find the exact perimeter of the triangle.



4. Find the perimeter of a right, isosceles triangle, to the nearest hundredth, in which one of the legs measures 5 inches.

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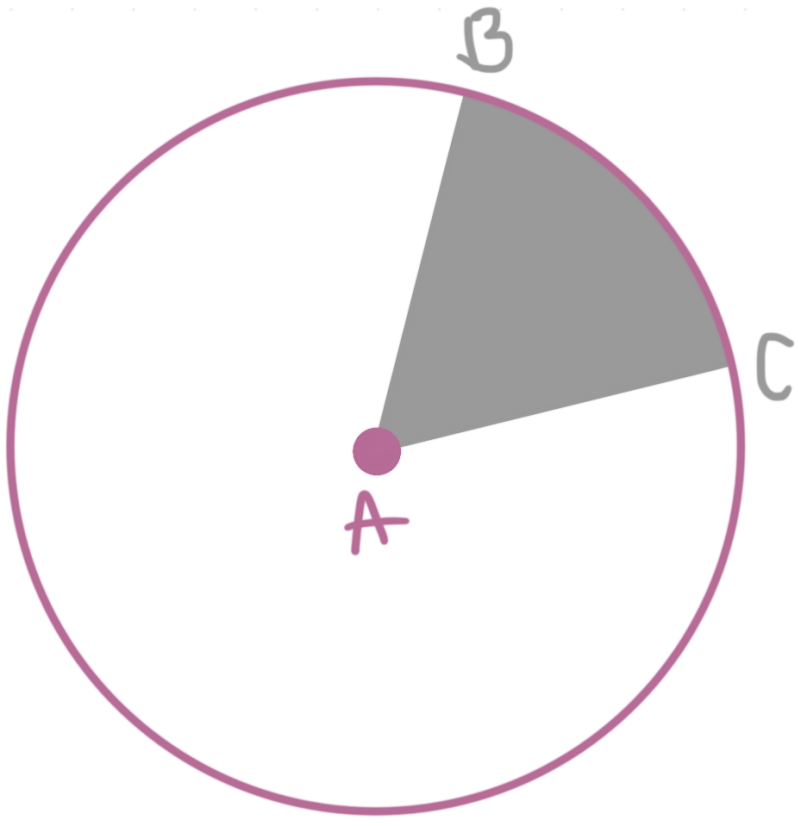
AREA OF A CIRCLE

■ 1. Find the area of a circle to the nearest hundredth with a diameter of 44 inches.

■ 2. The area of a circle is 300 cm^2. Find the length of the radius to the nearest tenth of a centimeter.

■ 3. Find the exact area of a circle with a circumference of 18π.

■ 4. Find the area of the shaded region to the nearest tenth if $m\angle BAC = 60°$ and $AC = 16$ feet.



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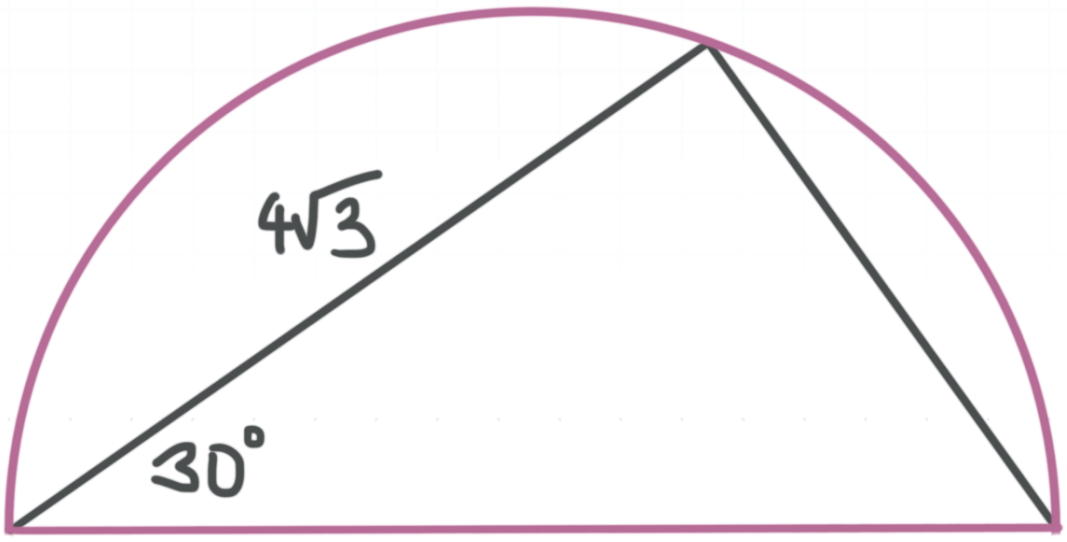
CIRCUMFERENCE OF A CIRCLE

■ 1. To the nearest hundredth, find the circumference of a circle that has a radius of 14 feet.

■ 2. Find the area of a circle with a circumference of 400 ft.

■ 3. Find the exact circumference of the semicircle.



■ 4. To the nearest tenth, find the distance around the following track.

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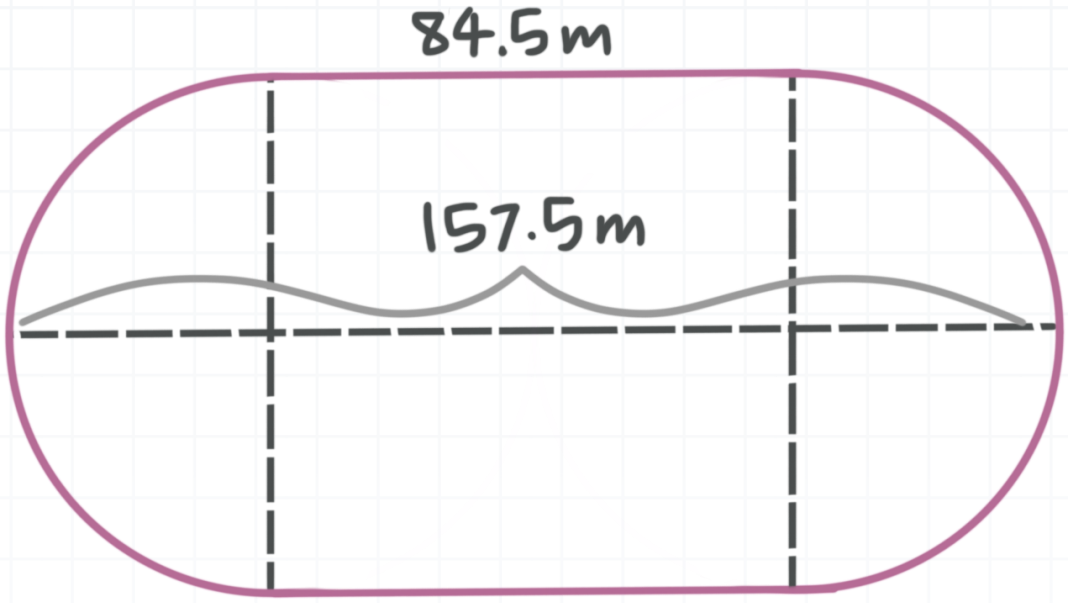

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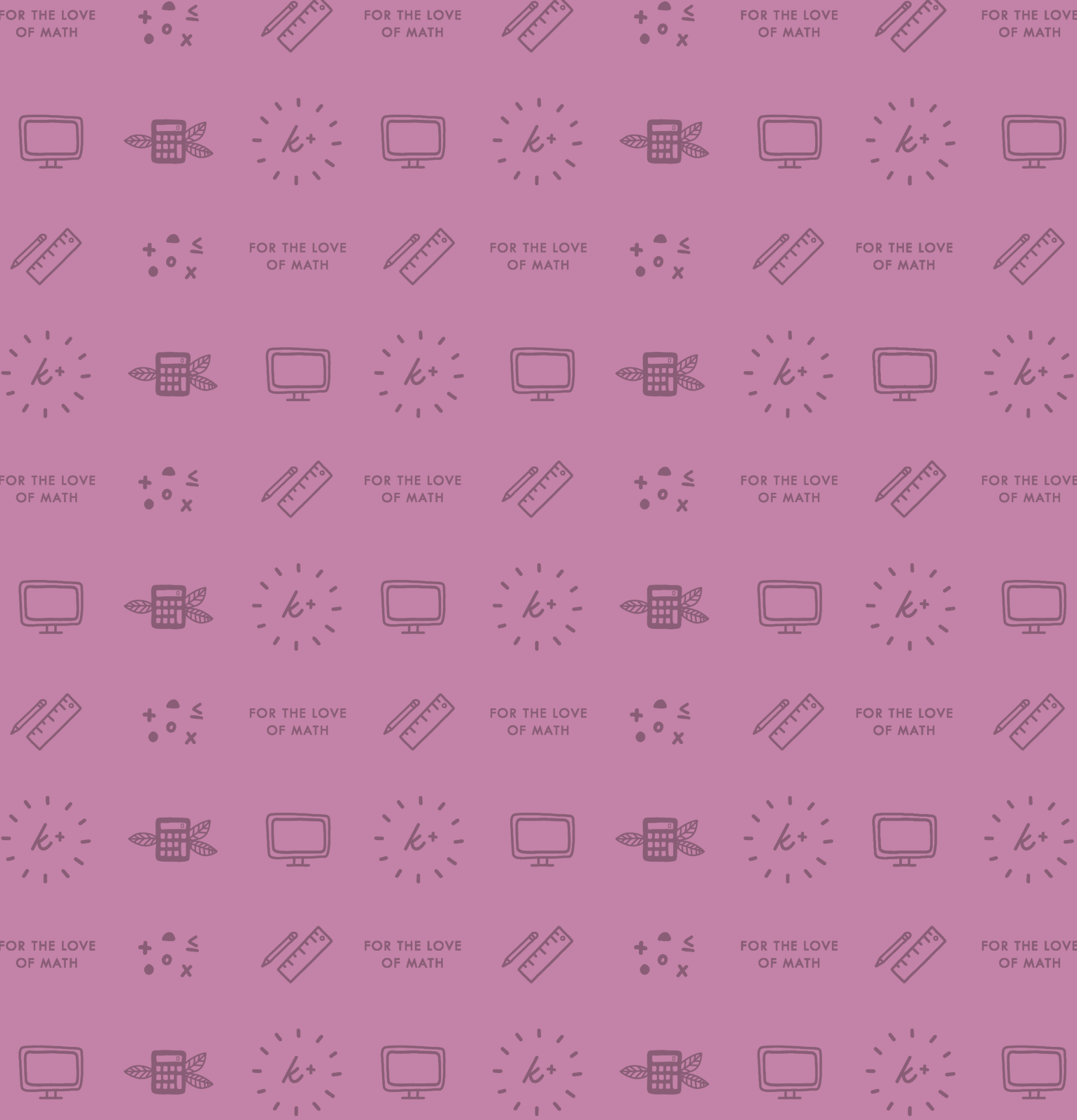

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